REMARKS

This is in response to the Office Action of April 25, 2006. Claims 1-6, 8, and 10-32 were rejected. Claims 1, 2, 5, 12, 22, 28, 29, 30, and 31 were amended. Claims 1-6, 8, and 10-32 are pending.

In response to the 35 U.S.C. §101 rejection of claim 28, Applicants have amended claim 28 to be a computer readable medium claim.

The pending claims were rejected under 35 U.S.C. § 103 over Bigjakkstaffa alone (claims 1-6, 10-17, and 30-32) or in combination with other references. In response to the 35 U.S.C. §103 rejections, Applicants have amended independent claims 1, 12, 22, 28, 29, 30, and 31 to include a limitation that the overclocking parameters are selected from a "set of supported overclocking parameters pre-selected for said graphics system that includes a set of graphics processor core clock rates and memory clock rates having an initial starting point and a maximum end point." Applicants have also amended the claims to clarify that the final overclocking parameters are "within said set of supported overclocking parameters." Support for these amendments are found in paragraphs [0027]-[0028]. Claim 2 was also amended to recite a limitation that the overclocking parameters include a fan speed. Claim 5 was amended to clarify that a chip voltage, fan speed, and memory timing are part of the pre-selected overclocking parameters.

One aspect of Applicants' claimed invention is that the overclocking parameters are chosen from a pre-selected set of supported overclocking parameters having a defined range. In the context of commercial products, the pre-selected set of supported overclocking parameters are selected to have an initial starting point and a maximum end point. For example, an embodiment described in paragraph [0029] describes how the graphics system may maintain an internal table of supported ranges of clock settings along with associated settings. These pre-selected supported overclocking parameters can be chosen by a designer of a graphics system to improve the speed, efficacy, and safety with which overclocking is performed. Moreover, the supported sets of overclocking parameters can be selected to also include other parameters such

as a fan speed for cooling a graphics chip as in claim 2; and chip voltage, memory timing, and fan speed as in claim 5.

Bigjakkstaffa and the other cited references do not teach or suggest the limitation of claims 1, 12, 22, 28, 29, 30, and 31 of selecting overclocking parameters from a "set of supported overclocking parameters pre-selected for said graphics system that includes a set of graphics processor core clock rates and memory clock rates having an initial starting point and a maximum end point." In contrast, Bigjakkstaffa discloses a technique in which a user manually attempts to overclock a graphics system using a trial and error approach. In Bigjakkstaffa, the user keeps increasing the overclocking and tries to visually detect graphical errors on a display before they damage the chip. Additionally, the arbitrary trial and error technique of Bigjakkstaffa is wasteful since the search for overclocking parameters is purely trial and error. In contrast, Applicants' claimed invention begins from a pre-selected set of supported overclocking parameters, thereby improving the safety and efficacy with which optimum overclocking parameters are selected.

Additionally, Applicant respectfully disagrees that Bigjakkstaffa teaches or suggests the limitation of claim 1 and comparable limitations of other claims that "said set of overclocking parameters passes said stress test if the number of pixel errors is below a threshold level." Applicants can find no teaching or suggestion in Bigjakkstaffa that an end user can visually quantify the number of pixel errors with respect to a threshold level. In contrast, Bigjakkstaffa states on page 9 that excessive overclocking results in glitches in which "textures may flicker a lot or colored dots may appear." This description is inconsistent with a quantifiable technique to monitor a number of pixel errors with respect to a threshold level.

In additions to the reasons cited above for the independent claims, the dependent claims include additional limitations. In regards to dependent claims 2 and 5 Applicants can also find no teaching or suggestion in Bigjakkstaffa for a system that selects overclocking parameters that also includes a fan speed. Aggressive overclocking results in an increased heat load that can result in higher operating temperatures, shortening chip lifetime. Claims 2 and 5 describe an embodiment in which the supported overclocking parameters also include a fan speed such that a

fan speed setting is automatically selected. Additionally, aggressive overclocking may also require other system parameters to be adjusted for best performance, such as chip voltages or memory timings. Claim 5 describes an embodiment in which the supported overclocking parameters include fan speed, voltage, and memory timings.

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is now in condition for allowance. The Examiner is invited to contact the undersigned if there are any residual issues that can be resolved through a telephone call.

The Commissioner is hereby authorized to charge any appropriate fees to Deposit Account No. 50-1283.

Respectfully submitted,
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